

CLAIMS:

What is claimed is:

- 1 1. A method for updating programs to be used in a network
2 comprising a plurality of first type computers having a limited
3 function range relative to a plurality of second type computers
4 having a respective extended function range, a service being
5 defined as comprising update services providing an updated
6 facilities version to be performed by the second type computers
7 to said first type computers, the method comprising the steps of:
8 selecting a first subgroup comprising at least one first
9 type computer;
10 selecting a second subgroup comprising at least one of the
11 second type of computers for providing said updated facilities
12 version exclusively to first type computers until a predetermined
13 condition has occurred; and
14 loading at least one computer of the first subgroup with
15 said updated facilities version during continued operation of the
16 unselected plurality of first type computers with a former
17 version means.
- 1 2. The method according to claim 1, further comprising the
2 steps of:
3 testing at least one computer of the first subgroup with
4 said updated facilities version during continued operation of the
5 unselected plurality of first type computers; and
6 distributing said updated facilities version over the
7 remaining plurality of unselected computers if a test result
8 corresponds to a predetermined result scheme.

1 3. The method according to claim 1, further comprising the
2 steps of:
3 distributing the updated facilities version among the second
4 type of computers; and
5 preventing them from providing services as long as they are
6 not equipped with the updated facilities version.

.1 4. The method according to claim 1 in which said first type of
2 computers are embedded controllers and the service of the second
3 type computers comprising the provision of code loads to the
4 first type of computers.

1 5. The method according to claim 1 for updating programs in an
2 enterprise network.

1 6. The method according to claim 1 for updating software of
2 embedded controllers in an enterprise network.

1 7. The method according to the claim 1 for updating software of
2 embedded controllers in a computer-controlled industry plant.

1 8. An apparatus for updating programs to be used in a network
2 comprising a plurality of first type computers having a limited
3 function range relative to a plurality of second type computers
4 having a respective extended function range, a service being
5 defined as comprising update services providing an updated
6 facilities version to be performed by the second type computers
7 to said first type computers, the apparatus comprising:

8 a first selector selecting a first subgroup comprising at
9 least one first type computer;

10 a second selector selecting a second subgroup comprising at
11 least one of the second type of computers for providing said

12 updated facilities version exclusively to first type computers
 13 until a predetermined condition has occurred; and
 14 a loader loading at least one computer of the first subgroup
 15 with said updated facilities version during continued operation
 16 of the unselected plurality of first type computers with a former
 17 version means.

1 9. The apparatus according to claim 8, further comprising:
 2 a tester testing at least one computer of the first subgroup
 3 with said updated facilities version during continued operation
 4 of the unselected plurality of first type computers; and
 5 a distributor distributing said updated facilities version
 6 over the remaining plurality of unselected computers if a test
 7 result corresponds to a predetermined result scheme.

1 10. The apparatus according to claim 8, further comprising:
 2 a distributor distributing the updated facilities version
 3 among the second type of computers; and
 4 preventing means for preventing them from providing services
 5 as long as they are not equipped with the updated facilities
 6 version.

1 11. The apparatus according to claim 8 in which said first type
 2 of computers are embedded controllers and the service of the
 3 second type computers comprising the provision of code loads to
 4 the first type of computers.

1 12. The apparatus according to claim 8 further comprising means
 2 for updating programs in an enterprise network.

1 13. The apparatus according to claim 8 further comprising means
 2 for updating software of embedded controllers in an enterprise
 3 network.

1 14. The apparatus according to the claim 8 further comprising
2 means for updating software of embedded controllers in a
3 computer-controlled industry plant.

1 15. A program product usable for updating programs to be used in
2 a network comprising a plurality of first type computers having a
3 limited function range relative to a plurality of second type
4 computers having a respective extended function range, a service
5 being defined as comprising update services providing an updated
6 facilities version to be performed by the second type computers
7 to said first type computers, said program product comprising:

8 a computer readable medium having recorded thereon computer
9 readable program code means for performing the method comprising:

10 selecting a first subgroup comprising at least one first
11 type computer;

12 selecting a second subgroup comprising at least one of the
13 second type of computers for providing said updated facilities
14 version exclusively to first type computers until a predetermined
15 condition has occurred; and

16 loading at least one computer of the first subgroup with
17 said updated facilities version during continued operation of the
18 unselected plurality of first type computers with a former
19 version means.

1 16. The program product according to claim 15, wherein said
2 method further comprises:

3 testing at least one computer of the first subgroup with
4 said updated facilities version during continued operation of the
5 unselected plurality of first type computers; and

6 distributing said updated facilities version over the
7 remaining plurality of unselected computers if a test result
8 corresponds to a predetermined result scheme.

1 17. The program product according to claim 15 wherein said
2 method further comprises:

3 distributing the updated facilities version among the second
4 type of computers; and

5 preventing them from providing services as long as they are
6 not equipped with the updated facilities version.

1 18. The program product according to claim 15 in which said
2 first type of computers are embedded controllers and the service
3 of the second type computers comprising the provision of code
4 loads to the first type of computers.

1 19. The program product according to claim 15 for updating
2 programs in an enterprise network.

1 20. The program product according to claim 15 for updating
2 software of embedded controllers in an enterprise network.

1 21. The program product according to the claim 15 for updating
2 software of embedded controllers in a computer-controlled
3 industry plant.